mechanical science. There is, in fact, nothing that I for one desiderate more in Professor Fullerton's metaphysical structure than a serious and thorough discussion of the question, what are the real logical postulates of mechanical science, as distinguished from the mechanistic philosophy professed by some, but by no means all, men of science, and how far those postulates imply the belief that the actual course of any real process is through-and-through mechanical.

But the adequate discussion of this problem presupposes a much more searching critical analysis of the logical character of knowledge than Professor Fullerton has seen fit to undertake. One very important issue which such an analysis would raise would be the question whether an empirical realism, such as that successfully upheld by Professor Fullerton against the subjective idealist, does not admit, or possibly even demand, as its complement a further doctrine of critical or transcendental idealism.

A. E. Taylor.

SOCIETIES AND ACADEMIES.

THE NEW YORK SECTION OF THE AMERICAN CHEMICAL SOCIETY.

The last regular meeting of the New York Section of the American Chemical Society was held in the Assembly Hall of the Chemists' Club, 108 West 55th St., Friday, June 9, at 8:15 P.M. The chairman, Dr. Wm. J. Schieffelin, presided.

The reports of the secretary and treasurer for the year 1904–1905 were read and approved. The secretary's report showed a net gain in membership of the section of sixteen.

The program of the evening was as follows:

Some Condensation Products of 1 Phenyl-naphthalene-2-3-Dicarboxylic Anhydride: Norman A. Du Bois.

It was shown by Michael and Bucher that acetic anhydride and phenylpropiolic acid act upon each other to form a new compound, α phenylnaphthalene-dicarboxylic anhydride. The reaction is said to be practically quantitative. In preparing quantities of this compound for experimentation, a modification in the usual method for the preparation of phenylpropiolic acid was discovered by the writer. Formerly it was prepared from cinnamic acid by esterifying and brominating, and then boiling the cinnamic ethyl ester dibromide with alcoholic potash for eight hours. It was found that this long boiling was unnecessary and that as good a yield was obtained if the alcohol was distilled off immediately after dissolving the cinnamic ethyl ester dibromide.

The α phenyl-naphthalene-dicarboxylic anhydride can be condensed with resorcin in the presence of zinc chloride, to form a compound analogous to fluorescein. This fluorescein analogue, when treated with the theoretical quantity of bromine in glacial acetic acid forms a tetra bromo substitution product, analogous to eosin. Both of these compounds are direct dyes for animal fibers. The fluorescent analogue also forms iodine and chlorine substitution products.

The α phenyl-naphthalene-dicarboxylic anhydride can also be condensed with most other phenols to form condensation products analogous to those formed by phthalic anhydride.

On the Preparation of Hydrobromic and Hydriodic Acids: L. H. Friedburg.

Bromine is allowed to trickle into paraffin which is kept in a molten condition by placing the flask containing it in a shallow steam-bath. The bromine vapors which will pass over along with the hydrobromic acid, are partly absorbed by a second paraffin-containing flask, joined to the first and standing together with it in the water-bath.

The fact that iodine and paraffin, or better still, iodine and vaseline, will allow the production of hydriodic acid was a further novelty. Here the gas produced is not washed but simply passed through a big empty bulb-tube before allowing it to be absorbed by water.

Præseodymium Tetroxide: Charles Baskerville and J. B. Thorpe.

That which has been regarded as the tetroxide, Pr_2O_4, is a brownish-black substance resembling manganese dioxide in appearance and conduct with hydrochloric acid. It should rather be called the dioxide. By fusing this dioxide with sodium dioxide a yellow-

ish substance has been obtained which on analysis shows the formula $Pr_1O_4 \cdot H_2O$. This tetroxide is insoluble in water, but readily decomposed by acids, giving the normal salts of præseodymium.

On the Simplicity of Præseodymium: CHARLES BASKERVILLE and G. M. MACNIDER.

Unsuccessful efforts were made to fraction præseodymium by fractional precipitation at different temperatures with oxalic acid, fusion with sodium dioxide, fractional solution of the dioxide and tetroxide in hydrochloric acid. The fractionation was followed by an examination of solutions of uniform strength, acidity and amount by means of a Zeiss comparison spectrometer.

Artificial Willemite: CHARLES BASKERVILLE and A. BOURGOUGNON.

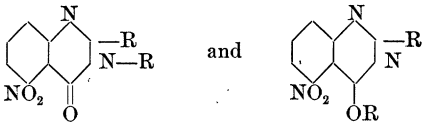
Artificial zinc ortho-silicate made of pure material neither fluoresces nor phosphoresces under the influence of the ultra-violet light. On the introduction of small amounts of manganese, bismuth and thorium various results were obtained. All of these bodies are phosphorescent; only that one containing the manganese is fluorescent.

The Production of Boron Carbide from Boric Oxide in the Electric Furnace: H. J. BLISS and S. A. TUCKER.

The extreme hardness of this substance might give it certain uses as an abrasive. The authors showed that it could be prepared directly from boric acid and coke in large quantities, whereas hitherto boron has been used for the preparation. The existence of Muplhauser's BC was shown to be extremely doubtful and is probably a mixture of graphite and B_6C.

Isomeric Ethers in the Qinazoline Group: H. A. SEIL and M. T. BOGERT.

The isomerism in this group depends on the migration of an imide hydrogen in the ortho position to a ketonic oxygen. The isomers are



The first was prepared by the action of NH_2R on the 6-nitro-acyl-anthranil. The second by heating the alkyl-hydrogen-quinazoline with potassium hydroxide and alkyl iodide in a bomb tube to 150° C. Both are crystalline solids soluble in hot alcohol. The ether melts at ten degrees lower than its isomeric quinazoline.

Acyl Derivatives of 4 Amino-methyl-phthalate: R. R. RENSHAW and M. T. BOGERT.

4 Amino-methyl-phthalate is readily obtained by the reduction of 4-nitro-methyl-phthalate. It crystallizes from alcohol and benzine in glistening plates. Acyl derivatives of this were prepared with mono and dibasic fatty acids, aromatic acids and substituted carbonic acids. These substances are well-defined, crystalline bodies, soluble in most organic solvents, nearly insoluble in water, ligrome and petroleum ethers.

The following officers were then elected for the year 1905–1906:

President—F. D. Dodge.
Vice-President—A. A. Breneman.
Secretary-Treasurer—F. H. Pough.
Executive Committee—Wm. J. Schieffelin, H. C. Sherman, Charles Baskerville and G. C. Stone.

F. H. POUGH,
Secretary.

DISCUSSION AND CORRESPONDENCE.

ON THE SPELLING OF 'CLON.'

IT is over two years[1] since Mr. H. J. Webber first proposed the word *clon* as the designation of horticultural groups of plants which are propagated exclusively by vegetative means. During this period of probation, as it were, the need for such a word has been amply demonstrated, and its formal adoption by the Association of Agricultural Colleges and Experiment Stations has placed it within the cognizance of lexicographers. No other word apparently exists which can properly be extended in meaning to cover the idea expressed by *clon;* and the purpose of the present writer is merely to suggest an improvement in orthography which seems to be demanded by both phonetic and philological considerations. One of the few definite indications of quantity in

[1] SCIENCE, N. S., **18**: 501–503, 1903.